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CANADIAN-AUSTRALIAN OPPORTUNITIES FOR DEFENCE PROCUREMENT AND INDUSTRY COOPERATION

CRAIG STONE



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AND INDUSTRY COOPERATION**

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57 Erb Street West
Waterloo, Ontario N2L 6C2
Canada
tel +1 519 885 2444 fax +1 519 885 5450
www.cigionline.org

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ABOUT THE AUTHOR

Craig Stone is the director of academics at the Canadian Forces College and the associate dean of arts at the Royal Military College of Canada. Craig spent 29 years in the Canadian Army as an artillery officer and holds a B.A. in economics from the University of Manitoba and an M.A. and Ph.D. in war studies from the Royal Military College of Canada. He teaches in the areas of strategic resource management, formulating national security strategy and defence economics. His recent publications include “Accrual Budgeting and Defence Funding: Theory and Simulations” with Binyam Solomon (*Defence and Peace Economics*, 2013) and “A Separate Defence Procurement Agency: Will It Actually Make a Difference?” (Canadian International Council and Canadian Defence & Foreign Affairs Institute, 2012). He is currently working on the economic impact of defence expenditures in the Canadian defence industry and an update to his 2009 book *The Public Management of Defence in Canada* (Breakout Educational Network).

EXECUTIVE SUMMARY

Diplomatic relations between Canada and Australia have existed for almost 75 years. The two countries share a colonial past with the British Empire and have similar political structures, and their militaries have been in the same locations on a number of occasions, most recently in Afghanistan. This paper explores the issue of whether or not there are opportunities for Canada and Australia to cooperate in the areas of defence procurement and the defence industrial base. The two nations face similar challenges with respect to funding their armed forces and providing the military capabilities that will be required to deal with the future security environment. After examining the procurement processes utilized in each nation and discussing how they interact with their defence industries, some recommendations are provided on areas where cooperation between the two nations could be possible.

The difficulty with defence industry cooperation is that it must be planned for early in the capability development process because that is when industry from both nations could decide to partner in their proposals. A number of broad sectors were highlighted as possible areas for joint cooperation. These sectors are consistent with the priorities articulated by both nations and include:

- **Submarine technologies.** Both nations will need to replace their submarine fleets in the 2020 time frame.
- **Intelligence surveillance and reconnaissance technologies.** Canada and Australia are nations with large expanses of sparsely populated land and lengthy coastlines. The ability to provide accurate and timely surveillance of their land and economic exclusion zones to ensure sovereignty is particularly important. Both nations will need to acquire new capabilities for both domestic safety and security obligations and international interoperability requirements. Long-range surveillance aircraft, drones and other types of unmanned aerial vehicles and space-based systems all fit within the broader surveillance umbrella.
- **Cyber-security technologies.** Another area where industry cooperation is possible in both the defence and security environment as well as the commercial sector is cyber security. As trusted partners in the American, British, Canadian, Australian and New Zealand Armies’ Program (ABCA) and intelligence-sharing community, Canada and Australia can benefit from working together rather than with other less trusted partners. This is an area with significant economic opportunity for industry.
- **Simulation technologies.** The ability to provide realistic simulation to enhance training will help save lives and reduce costs, something that is particularly relevant for both nations.

Cooperation in these broad industry sectors can be substantiated with a business case that meets the profit and long-term value requirements of shareholders while at the same time providing the necessary capability to each nation's military.

INTRODUCTION

At the end of 2014, diplomatic relations between Canada and Australia will have existed for 75 years. Although the two countries are on opposite sides of the world, they share much in common, both historically and today. The Australian government describes the relationship as mature and highly productive (Government of Australia, 2013a) while the Canadian government indicates the relationship is friendly and highly productive (Government of Canada, 2013a). The two countries share a colonial past with the British Empire and have similar political structures, and their militaries have been in the same locations on a number of occasions, most recently in Afghanistan. Governments in both nations face similar challenges with respect to health, trade agreements, regional development, indigenous issues, the global economic crisis and budget deficits, to name just a few. More importantly for this paper, the two nations face similar challenges with respect to defence and providing the funding necessary to acquire the capabilities for dealing with the future security environment.

This paper will explore this issue in more detail by looking at whether or not there are opportunities for Canada and Australia to cooperate in the areas of defence procurement and the defence industrial base. It will begin with a brief outline of the history and current state of defence cooperation between the two nations before looking more specifically at military procurement. The approaches used by both countries to acquire military equipment and how they interact with their defence industries will be discussed. The paper will conclude with recommendations on areas where cooperation between the two nations would be possible and beneficial.

A HISTORY OF DEFENCE COOPERATION

The websites of both nations' foreign affairs and trade departments make reference to the fact that their military forces have fought side by side in a number of wars, beginning with the Boer War in the late 1890s. The Canadian and Australian militaries fought together in the two world wars, the Korean War, the 1990-1991 Gulf War and, most recently, in Afghanistan. They have also both contributed to a number of UN missions. Greg Donaghy's 2013 book, *Parallel Paths: Canada-Australian Relations since the 1890s*, describes the Canadian-Australian relationship from a broader historical context for the two nations; the focus in the early years of the relationship is based on either trade or military issues. For example, Donaghy

discusses the significant disagreement between Australia and Canada with respect to the Anglo-Japanese Treaty in the aftermath of World War I. The important issue is that despite the rich history of the defence relationship, it has not always been without friction. In the early years of both nations' development, imperial issues were viewed differently and the personalities and political leanings of the leaders mattered. The two nations cooperated during actual conflict, but still had different approaches to the British war effort and the role of colonies and the Commonwealth within the Empire.

Despite the somewhat inconsistent relationship between Canada and Australia of the early twentieth century, relations since the early 1950s and the Korean War have been strong and positive. Australia and Canada have military personnel on exchange in each other's country, conduct military visits, are members of the ABCA and participate in important intelligence-sharing activities with the United States. In the wake of the September 11, 2001 terrorist attacks on the United States, both nations invoked their treaty obligations in order to support the response of the United States. Canada invoked Article 5 under the North Atlantic Treaty Organization (NATO) and Australia invoked Articles 4 and 5 of the Australia, New Zealand, United States Security Treaty (Rostek 2006).

The seminal work for anyone looking at the defence relationship between the two nations is John Blaxland's Ph.D. dissertation "Strategic Cousins: Canada, Australia and Their Use of Expeditionary Forces from the Boer War to the War on Terror" (2004) and a subsequent book with the same name published by McGill-Queen's University Press in 2006. Blaxland provides a historical overview of the military contributions of both nations to their main benefactor, first the United Kingdom and then, after World War II, the United States.

More specific to the issue being addressed in this paper, there are a number of areas where both nations' defence industries have been involved in supporting defence procurement. Both nations have science and technology organizations involved with the NATO Technical Cooperation Program (TTCP) — the Defence Science and Technology Organization in Australia and Defence Research and Development Canada in Canada. Both organizations are separate agencies within their respective ministries of defence. Membership in these organizations provides avenues for innovation and possible access to military procurement projects. As well, in the fall of 2011 in a press meeting with Canada's Defence Minister Peter MacKay and Australian Defence Minister Stephen Smith, Minister Smith indicated that the two ministers had "agreed that we will have a strategic dialogue on some of the key procurement, acquisition, capability and budget reform issues that both of us share" and that Australia "will obtain from Canada some anti-IED [improvised explosive device]

capability; protected vehicles with sensor capability in the vehicles” (Government of Australia 2011).

Agreeing to a strategic dialogue and purchasing equipment from each other is a positive demonstration of defence cooperation and there is scope for more moving forward; however, both nations must be cognizant of their relations with the United States, which will influence how and in what way cooperation is implemented. This is significantly more important to Canada than Australia because Canadian defence industries are part of a broader North American defence industrial base. The Canada-US relationship dates back to the Defence Production Sharing Agreement signed in 1958, which “integrated Canadian-American military production by removing obstacles to reciprocal procurement and to the trans-border flow of defence goods” (Van Steenburg 1988, 195). The agreement has been amended a number of times: the sharing of research and development activities was added, and in 2001, the United States Department of Defense and the Canadian Department of National Defence (DND) agreed to establish an official channel “to more efficiently pursue their efforts to improve the defense posture of the North American technology and industrial base” (North American Technology and Industry Base Organization [NATIBO], 2010). In the form of a memorandum of understanding, the agreement formalized an existing relationship that had been evolving since the late 1950s.

There is no such agreement between Australia and Canada, so the relationships that exist are informal and ad hoc. This is not to imply that a formal relationship is required, but rather to note that the relationship will never be as significant as the relationship with the United States. In the same context, Australia faces similar but not identical constraints. Australia has security and defence agreements with the United States and must balance any agreements with other nations in a way that does not jeopardize the primacy of the Australia-US relationship. Both nations have important linkages to the United States that will both constrain and support defence cooperation between them. As such, procurement cooperation opportunities and agreements will be framed within this broader context.

PROCUREMENT AND THE DEFENCE INDUSTRIAL BASE

Defence procurement is the demand side of the defence equipment market. Militaries and governments are required to make choices between defence contractors and also between services. Although national security requirements should be the ultimate driver of what is purchased, the selection of the actual defence contractor is a complicated and lengthy process. Decisions are required on whether to source the equipment from a domestic or foreign supplier; any decision to open the contract to foreign suppliers will likely be opposed by

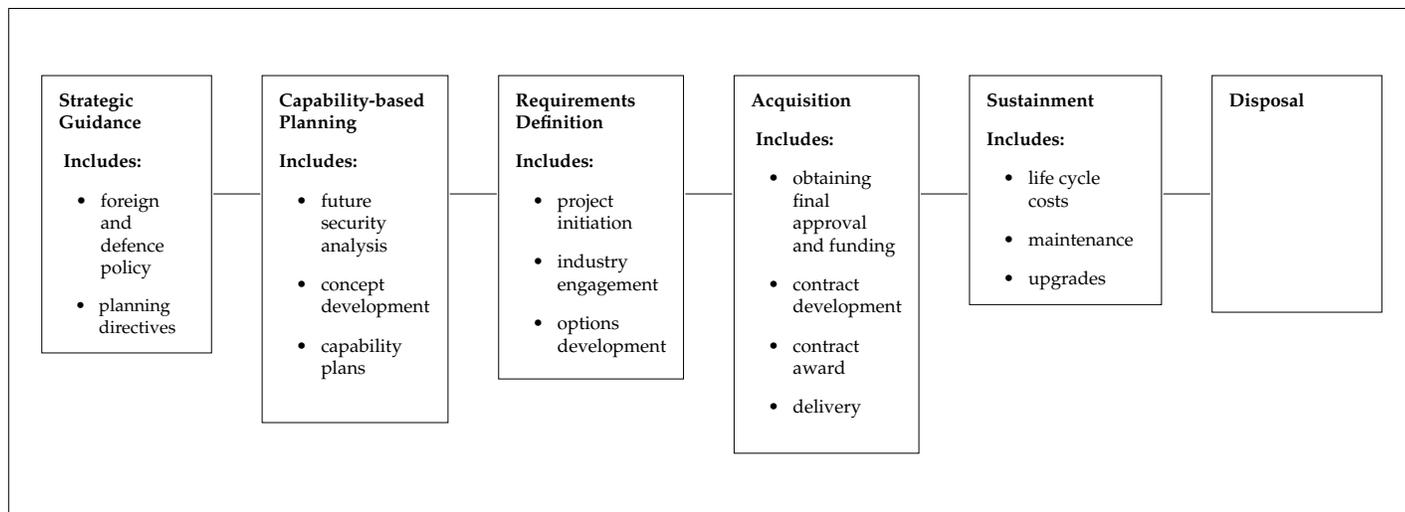
domestic suppliers. Many industries, other government departments and interested individuals will advocate for the use of defence purchases to promote economic benefits in a particular region of the country or to create jobs in a specific sector of the economy. These conflicting pressures are in addition to the general belief in many nations that their procurement process is in dire need of repair.

Defence procurement reforms across Western nations have been the subject of reports and studies for decades. In his October 2009 review for the United Kingdom’s secretary of state for defence, Bernard Gray, a former special adviser to the UK minister of defence, stated that the problem is that “Acquisition Reform, as it is generally known, is a subject only about 5 minutes younger than the acquisition of military equipment itself” (Gray 2009, 15). Ross Fetterly’s study of defence procurement reforms in other nations begins with a quote from Steven Reeves, who captured the essence of this issue when he stated: “During the past 50 years, defense acquisition reform panels, studies, reviews, and commissions occurred with such frequency that they could virtually provide lifetime employment” (Reeves quoted in Fetterly 2009, 30).

Unfortunately, cost overruns, late deliveries and an inability to meet operational requirements are ongoing problems for most modern Western militaries. This is not to say that everything is bad, but rather to indicate that defence procurement is a very complex and difficult activity where politics is always part of the outcome. Consequently, governments and defence departments are always trying to improve the results in order to meet taxpayer expectations that their tax dollars are being spent effectively. This is even more important in the current fiscal environment as nations deal with reduced defence budgets and increased scrutiny of what money is being used for. It is within this broader environment that opportunities may exist for Canada and Australia to cooperate, given that their processes and industrial capacities are similar in a number of ways.

Although one might be inclined to launch into a comparison of procurement processes, any discussion of procurement and how it relates to a nation’s defence industrial base must begin with an understanding of how a nation decides what to procure. In most Western nations, including Canada and Australia, this is referred to as the force development or capability development process. It is within this larger process that procurement decisions and industrial engagement are made. The Canadian force development process is shown in Figure 1. Although not identical to the Australian process, the process is similar in terms of the key issues and decisions that must be made to determine what capabilities both nations need to acquire.

Figure 1: A Simplified Force Development Process



Source: Author.

Capability development is important to all militaries and is really the starting point for any discussion on procurement. The capability process utilized by a nation's military determines what will eventually be procured. The Australian *Defence Capability Development Handbook* defines capability as "the capacity or ability to achieve an operational effect" with an operational effect "defined or described in terms of the nature of the effect and of how, when, where and for how long it is produced" (Government of Australia 2012, 2). However, achieving a capability is more than just purchasing equipment. Capabilities are established by bringing together a number of components or systems in order to produce a combined effect. In Australia, the defence department refers to these various inputs into the development of a capability as the fundamental inputs to capability, which are described in a separate publication within the broader hierarchy of doctrinal publications (Australian Defence Doctrine Publication 00.2 *Preparedness and Mobilisation*). The process for Canada is described in the *Capability Based Planning Handbook* (Government of Canada 2010). In both cases, the documents are considered living documents, are available online and are updated on a regular basis.

In both Australia and Canada, the actual procurement process begins once the capability-based planning process has determined what the actual requirement is. At this point the acquisition or procurement phase of capability-based planning begins. Here again, the process utilized by both nations is similar.

THE AUSTRALIAN PROCUREMENT PROCESS

Defence procurement in Australia is categorized as simple, complex or strategic. The Australian *Defence Procurement Policy Manual* defines these categories as:

- simple: "a procurement category where the overall level of risk and complexity is assessed as low after a risk assessment commensurate with the size and complexity of the procurement has been conducted" (emphasis in original);
- complex: "a procurement category where the overall level of risk and complexity is assessed as medium to high after a risk assessment has been conducted that is commensurate with the size and complexity of the procurement" (emphasis in original); and
- strategic procurement: "a procurement category where the overall risk and complexity is **high to extreme** after a risk assessment has been conducted that is commensurate with the size and complexity of the procurement" (emphasis in original) (Government of Australia 2013b, 1.3-1-1.3-2).

It is clear from these general definitions that risk assessment plays an important role in determining whether a procurement project is considered simple, complex or strategic. Although these definitions are fairly straightforward, much more information would be required in order to select the appropriate category. In reading the procurement policy manual it is clear that most major weapons systems will be complex or strategic and that the simple procurement process is generally used for inexpensive and recurring low-risk items that would be available commercially. This is not unlike the system utilized in Canada.

The more difficult issue revolves around measuring risk and what factors are actually considered by individual staff planners and project teams making the assessments. In this context, the government policy is reasonably clear. Assessments on risks associated with legal, commercial, financial, political, project management

(including schedule), technical and logistical areas will be included, and the “rigour of the risk assessment should be commensurate with the size and complexity of the procurement and is at the discretion of the official conducting the procurement” (ibid.: 1.3-1).

The actual process utilized for a simple or complex procurement can be described around five major blocks of activity: planning the procurement; developing and distributing the request for offers; selecting the providers and developing the contract; managing the contract; and disposing of the asset. Details of what each block includes are provided in Table 1. In accordance with the procurement policy manual, complex procurement usually involves the purchase of more complex supplies (comprising goods and/or services) where some or all of the following issues need to be assessed:

- “the monetary value of the purchase is high;
- broader Value for Money considerations apply, including whole of life costing, supplier support capabilities, contractual conditions, fitness for purpose and supplier past performance...;
- comprehensive planning and risk assessment may be required;
- some design, development or integration may need to be undertaken;
- some non-standard terms and conditions may need to be negotiated;
- the method of procurement may be more complex (i.e., where a staged procurement approach has been adopted, such as when an Invitation to Register Interest is conducted prior to a Request for Tender);
- a more complex price basis is required (e.g. variable by formula or by exchange rate, payment in source [foreign] currency);
- more complex payment mechanisms may be adopted (e.g. mobilisation payments, progress milestones or performance payments);
- detailed probity plans, evaluation criteria, tender evaluation processes, and a Source Evaluation Report are required;
- government furnished facilities, equipment, data, information or services may be required to be provided to the contractor;
- specialist advice on legal, commercial, financial or technical considerations may be required, such as on limitation of liability or intellectual property issues; and

- the procurement is on the critical path of a related strategic procurement” (ibid., 1.3-2).

Differentiating between strategic and complex procurement is really the individual planner or project team’s assessment of the significance of issues such as whether or not the procurement is critical to defence’s ability to meet its core objectives, is linked to corporate-level planning decisions, requires first-pass and second-pass approval and is likely to be directed by a government policy decision. Nevertheless, all of the steps associated with a complex procurement would need to be addressed for a strategic procurement.

The sequence and steps in Table 1 have a number of checks and balances within the process in terms of actual rules and regulations around threshold values and delegation authorities. A procurement officer needs to have the appropriate competency requirements in order to proceed to the next step or needs to seek approval from someone with the appropriate competencies. The table reflects the steps that would be required for a complex or strategic procurement. A simple procurement would include the same blocks, but a number of the steps within the “develop and distribute” and “select providers” blocks would be simplified and reduced.

THE CANADIAN PROCUREMENT PROCESS

Defence procurement in Canada is not that different from the Australian process. Procurement projects are categorized as either a major Crown project or a minor project. According to the *DND Procurement Administration Manual* (Government of Canada 2013b), a project would generally be considered a major Crown project or be managed like a major Crown project when:

- “total projected costs will exceed \$100 million and TB [the Treasury Board] assesses the project as high risk;
- total projected costs will be less than \$100 million but TB still assesses the project as high risk, based on the Project Profile Risk Assessment (PPRA); and
- total projected costs will exceed the sponsoring minister’s delegated project approval authority” (ibid.: 59).

Like the Australian process, risk assessment plays an important role in determining whether or not a procurement project will be subject to a more deliberate and lengthy process. Table 2 provides an articulation of the procurement process in Canada, as articulated in the *Public Works and Government Services (PWGSC) Procurement Management Manual* (Government of Canada 2011). Procurement is managed around the four steps or processes of plan, conduct, administer and close out.

Table 1: Steps in the Australian Procurement Process

Block	Activity
Planning the procurement	Identify the need
	Define the requirement
	Plan the procurement
	Plan for through-life support
	Plan for disposal
	Identify and manage risks
	Consider funding source
	Assess the market
Developing and distributing request for offers	Determine the procurement method
	Develop the request for offer documents including draft contract
	Develop a tender evaluation plan
	Financial analysis planning
	Statement of available funds
	Update annual procurement plan
	Publish approach to market on Aus Tender
	Submission and receipt of offers
	Evaluate offers
Select providers and develop contracts	Source selection recommendations
	Inform unsuccessful/non-shortlisted bidders
	Prepare negotiation plan if appropriate
	Negotiate with preferred tenderer if appropriate
	Clear any amended clauses with the appropriate legal adviser
	Final funds availability test
	Contract is signed
	Inform unsuccessful short-listed tenderers and offer a debriefing
	Aus Tender
	Manage contracts
Report necessary contract variations on Aus Tender	
Evaluate the project, report on the progress and actions to be taken	
Finalize the contract closure reviewing and reporting	
Dispose of asset	Select a method of disposal
	Gain delegate approval for disposal

Source: Government of Australia 2013b.

Table 2: Steps in the Canadian Procurement Process

Block	Activity
Plan the procurement	Requirements definition
	Scope statement
	Project description
	Teaming agreements (stakeholders)
	Project security
	Risk register and plan
	Preliminary cost and schedule
	Project funding by activity
	Market conditions
	Organizational process assets
	Other planning outputs
	Constraints/assumptions
Conduct the procurement	Procurement management plan
	Statement of requirements
	Statement of work
	Request for proposals
	Project specifications
	Stakeholder/resources commitment
	Procurement documents
	Qualified sourcing lists
	Evaluation criteria
	Organizational process assets (policies and directives)
Administer the contract	Project plan
	Procurement documents and contract
	Contract performance standards and deliverables
	Change request process
	Organizational process assets
	Invoices
Close out the procurement	Project plan update
	Contract documentation

Source: Government of Canada 2011.

Examining the information in Tables 1 and 2 shows that many of the steps and activities are similar, although some of the terminology is different. However, there are some differences that are really connected to the organizations that actually manage the procurement process. For example, the Australian sequence includes a “dispose of asset” category that does not exist in the Canadian sequence. As well, in the very first step of the sequence, “planning the procurement,” there are some activities listed in the Australian sequence that do not have a similar activity articulated in the Canadian sequence. The root source of these differences is the organizational structure for conducting procurement. Canada has a “dispose of

asset” step and an “identify the need” step. Both are done inside the DND rather than the PWGSC, which is responsible for the actual procurement contracting.

Australia has one organization responsible for the entire procurement process, the Defence Material Organization (DMO), which exists in its current form based on two significant procurement reviews that were conducted in 2003 and 2008. The Kinnaird Review noted that “the creation of the DMO provided a single point of accountability for the acquisition and through-life support of Defence equipment and gave rise to a number of important reforms in the management of the acquisition

process (iv)” (Kinnaird 2003). The Mortimer Review was conducted to assess the progress being made with implementing the recommendations of the Kinnaird Review and noted “the implementation of the Kinnaird Review recommendations has resulted in wide-ranging reform and improvement in the capability development process in Defence, and the acquisition process in DMO (vii)” (Government of Australia 2008).

Unlike Australia (and a number of Canada’s allies), the procurement system in Canada involves a number of different organizations in government, but the three dominant departments are the DND, PWGSC and Industry Canada. Consequently, any direct comparison with the Australian DMO is complicated, if only because some of the steps articulated in the DMO procurement management manual are done in one of three departments in Canada rather than just one, as in Australia. In a bureaucracy, this typically results in more steps, less risk tolerance and significantly longer time periods.

Nevertheless, regardless of the differences in organizational structure, the overall process and challenges for both nations remain similar — cost overruns, changing requirements and delayed deliveries. A number of the reviews that have been conducted by nations, including Australia and Canada, have suggested that placing more emphasis on the early involvement of the defence industry is one solution to this problem. Getting the defence industry involved earlier in the process will also allow for early identification of opportunities for cooperation between the two nations.

DEFENCE INDUSTRY INTERACTION

The importance of getting the industry involved early in the process has been a consistent theme in many of the procurement reviews conducted in a number of countries. In Canada, for example, the Canadian Association of Defence and Security Industries’ (CADSI’s) report on procurement indicated a desire by the industry that the government “share annually, with Canadian industry, the ongoing plan to equip the Canadian Forces, including project timing and budgets” (CADSI 2009, 8). This is not done with any degree of consistency and not in the detail that would be helpful to the industry. It is possible, however, because the DND provides a 10-year investment plan to the Treasury Board, which could be utilized in the same way that Australia is providing a public defence capability plan. In the Australian case, an unclassified version of their defence capability plan is published every two years. The plan outlines military procurement plans for the next decade “so that potential suppliers can make informed decisions about their own strategic business plans” (Government of Australia 2008, 7).

Industry involvement in the procurement of military equipment should be part of the capability development

process, through a vehicle like the Australian public defence capability plan. How often the industry is involved is not as important as it being done on a consistent and regular basis so that the industry can plan accordingly and make long-term decisions. The argument against such early engagement is that the industry might choose to prepare for a capability that never becomes a priority. While this is a risk, regular updates would reduce the likelihood that a wrong decision would remain uncorrected. The more important issue is avoiding the military needing a capability and its defence industrial base having no capacity to provide that capability because it was unaware of the requirement and the need to make its own investments to provide the capability. This is particularly relevant in today’s environment where platforms and systems are becoming more technologically sophisticated. As Robert Wylie (2013, 109) notes, “local industry’s capacity to repair, maintain and adapt ADF [Australian Defence Force] equipment downstream in-service depends increasingly on the quality of its involvement in the supply of that equipment upstream in the procurement.”

It is clear from examining the Australian and Canadian approaches to procurement and where industry can engage in the process, that Australia has a more transparent process in terms of policy documents and capability requirements. Australia has issued a number of defence policies and defence industrial policies in the past decade. Canada has not. The Canada First Defence Strategy issued in 2008 is not really a defence policy statement, and there has never been a separate defence industrial policy issued in Canada. The Canadian practice has been to deal with defence industrial policy within a defence policy document.

From an industry perspective, this means that the Canadian defence industry is not really engaged in the procurement process until the government has developed a statement of requirement and goes out to the industry with what is referred to as a “letter of interest,” which the DND sends out to industry to get an initial sense of whether or not the industry could respond to such a requirement. The industry’s position has always been that it should be involved in the actual development of the statement of requirement because it has the knowledge of what is technologically feasible. This would avoid circumstances where companies that were considered world leaders in a particular capability area are unable to meet the mandatory requirements (CADSI 2009, 11).

Australia, on the other hand, has a defence industrial policy and an articulated set of Priority Industrial Capabilities and Strategic Industrial Capabilities. A defence company that wants to bid on a procurement project valued at over \$A20 million must indicate how they will support those industries. Industry was involved in the development of the priorities and the DMO completed assessments in each of the capability areas in 2012. Canada has no similar set

Table 3: Prioritized Industry Capabilities

Australian Priority Industry Capabilities	Canadian Key Industrial Capabilities
Acoustic technologies and systems	Arctic and maritime security
Anti-tampering capabilities	Protecting the soldier
Combat uniform and personal equipment	Command and support
Electronic warfare	Cyber security
High-end system and “system of systems” integration	Training systems
High frequency and phased array radars	In-service support
Infantry weapons and remote weapon stations	
In-service support of Collins-class submarine combat systems	
Selected ballistic munitions and explosives	
Ship dry-docking facilities and common-user facilities	
Signature management	
Through-life and real time support of mission critical and safety critical software	

Source: Government of Australia 2010; Government of Canada, 2013d.

of articulated capabilities, but it does have an Industrial and Regional Benefits Policy (Government of Canada 2012) and a Strategic Aerospace and Defence Initiative (Government of Canada 2013c). More importantly, the 2013 report by Tom Jenkins (Government of Canada 2013d) on leveraging defence procurement recommends to government that they move in the same direction as Australia has by articulating six key industrial capabilities. Table 3 shows the Australian and Canadian capabilities.

In comparing the two lists, it is clear that the Canadian list is more general, or less specific, than the Australian list. However, the types of capabilities are not that dissimilar in terms of which industrial sectors are being targeted. “Acoustic technologies and systems” on the Australian list is really the same sector of the industry as “Arctic and maritime security” on the Canadian list; “combat uniform and personal equipment” and “protecting the soldier” are similar, as are some others. In the fullness of time, should the Canadian government decide to implement the recommendations in the Jenkins report, the Canadian list should become more specific.

Nevertheless, what the above similarities imply in the context of this paper is that there is scope for defence industry cooperation and sharing on procurement projects for the two nations. Australia and Canada are trying to promote capacity in similar sectors. In both nations, many of their top defence firms are connected to the same US prime contractor. For example, Lockheed Martin, Boeing, General Dynamics Land Systems, Thales, Raytheon and Sikorsky are just some of the companies that operate in both Australia and Canada, with parent companies in the United States or Europe. Accepting that cooperation to

promote the interests of both nations is possible, the issue becomes what projects exist that fit within the articulated sectors in Table 3?

DEFENCE INDUSTRY COOPERATION

There may be a number of areas where Canada and Australia could develop cooperative activities in the future that would benefit both nations and provide some economies of scale for production. The words “may” and “could” are used deliberately. Any decision by governments to seek opportunities to cooperate would need industry agreement and would need to be done early in the capability development process. For those projects that are already under development, it is quite likely that industry has already assessed cooperative opportunities with allies as part of their engagement plan. The Light Armoured Vehicle upgrade is one example of existing cooperation between Australia and Canada, with General Dynamics Land Systems in both countries participating in the production of new vehicles. There are a number of existing capabilities where cooperation might have been possible, but it is likely too late now. The F-35 fighter project is a good example of this.

Although still a development program, the F-35 fighter project is now far enough along in the development and procurement process that participating Canadian and Australian companies are not going to change who, if anyone, they are cooperating with in order to be part of the supply chain for the F-35 fighter. What this really means in terms of defence industry cooperation is the need to look

at existing capability development plans and determine what future capability requirements provide cooperative opportunities. In this context, there are a limited but significant number of areas that stand out. For example, the same set of circumstances exist for shipbuilding. Since Canada has decided where its ships will be built, it would be up to the lead shipyards to decide if there was an economic benefit to cooperate with an Australian shipyard, and that is highly improbable.

However, both Australia and Canada will need to replace their submarine fleets in the 2020 time frame, which could provide a significant long-term cooperative opportunity. Neither nation is really in a position to purchase nuclear-powered submarines, so both will be looking at the next generation of diesel-electric boats. The lessons learned by both nations in their most recent submarine acquisitions (Collins class and Victoria class) will allow them to leverage the expertise that now exists within that particular industrial sector. This sector is also consistent with both nations' articulated industrial priorities (see Table 3).

Another sector that could provide significant scope for cooperation is in the area of what is referred to as intelligence, surveillance and reconnaissance. Canada and Australia are nations with large expanses of sparsely populated land and lengthy coastlines. The ability to provide accurate and timely surveillance of their land and economic exclusion zones to ensure sovereignty is particularly important. Both nations will need to acquire new capabilities for both domestic safety and security obligations, and international interoperability requirements. Long-range surveillance aircraft, drones and other types of unmanned aerial vehicles and space-based systems all fit within the broader surveillance umbrella. Looking at the Australian capability development plan, specific projects that would fall into this area include the Multi-Mission Unmanned Aircraft System and the Maritime Patrol Aircraft replacement, which are projects listed under the surveillance, reconnaissance and response sub-program. In addition, most of the projects listed under the integrated capability program have scope for cooperation. Again, the real challenge is to determine where in the project development stage these projects are and determining if industry can make a business case to both nations to provide a solution. This would require engagement by both industry and government to determine sequencing and program coherence.

Cyber security is another area where industry cooperation is possible in both the defence and security environment as well as the commercial sector. As trusted partners in the ABCA and intelligence-sharing community, Canada and Australia can benefit from working together rather than with other less-trusted partners. This is an area with significant economic opportunity for industry. A project like Computer Network Defence or High Grade Cryptographic Equipment, both integrated capability projects, are examples where both Canada and Australia

could develop capabilities that are compatible with US systems, which may in the longer term provide economic opportunities to supply US forces under existing defence trade agreement structures.

Finally, there is scope for cooperation in the simulation environment across all three services (army, navy and air force). The ability to provide realistic simulation to enhance training will help save lives and reduce costs, something that is particularly relevant for both nations moving forward.

Returning to the issue of trade agreements, Canada and the United States have had an integrated defence market under the Defence Production Sharing Agreement and the Defence Development Sharing Agreement since the late 1950s. Australia and the United States have recently established formal treaty arrangements on defence trade cooperation. The Australia-US Defence Trade Cooperation Treaty was signed between the two nations in 2007 and relevant provisions of the treaty's implementing program commenced on June 6, 2013 (Government of Australia 2013b). Canada and Australia should consider developing a similar treaty arrangement, designed to improve the efficiency of two-way transfers between the two nations. This would facilitate the ability of industry to cooperate knowing that they were meeting the requirements in all three nations. Although it is unlikely that such an arrangement would be at the same level as what is, in essence, an integrated North American industrial base for Canada and the United States, in the current environment of constrained defence budgets, any initiative that integrates defence industry markets provides opportunities for industry to reduce costs and be more competitive.

CONCLUSION

There may be other opportunities as both nations go through their next cycle of the capability development process and establish the types of capabilities they will need in the next 20 to 30 years. However, it will take dedicated effort on the part of both governments to set the stage for industry to cooperate in a manner that can be substantiated with a business case that meets the profit and long-term value requirements of shareholders while at the same time providing the necessary capability to each nation's military. There must be economic benefit for both nations, which must be articulated by government and industry in order to overcome the local politics that surround large defence procurement projects in both nations. Achieving defence industrial cooperation is a positive outcome in the longer term but it will not be an easy task.

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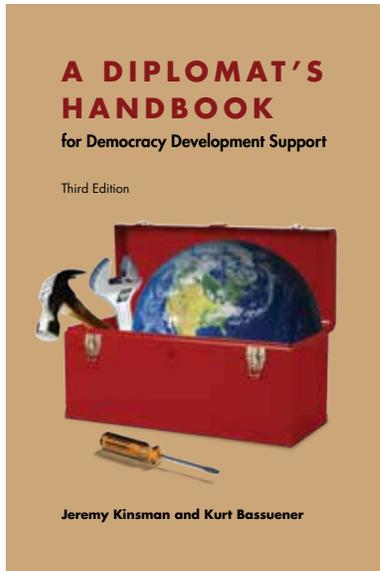
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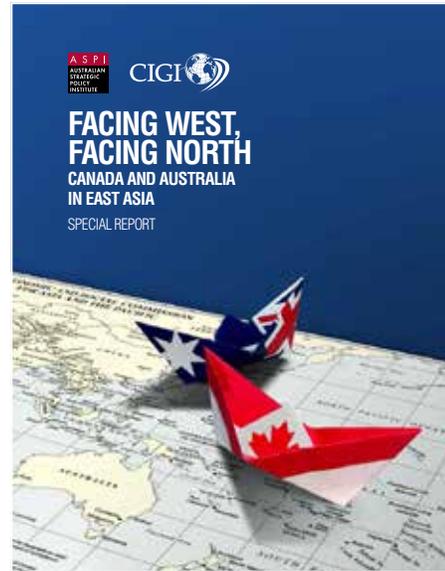
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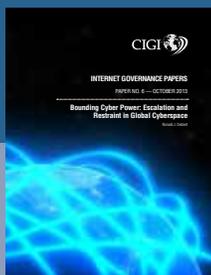
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